



Counter Explosive Hazards Center



**We Owe
Them The
Best!**



U.S. Army Engineer School
26 April 2004



Agenda

- Background
- Concept /Mission / Intent / Vision
- Organization and Functions
- External Lines of Communication
- Achievements
- Current Actions
- Future Actions



CG TRADOC Guidance

- DEC 01-

- **Acquire & reverse engineer mine, booby trap, and command detonation architecture**
- **World-wide knowledge assessment**
 - **What are current and future mine, booby trap, and command detonation technologies that threaten U.S. forces? (Visit national labs, universities and other nations)**
 - **How do other nations use/counter mines & booby traps? (Visit CIA, DCSINT, INSCOM, NGIC, Allies)**
 - **How do other forces train (MREs, TTPs, CTCs) for mines & booby traps? (Visit U.K., Israel, Australia, other allies)**
 - **How do coalition forces and contractors use dogs to detect mines & booby traps? (Visit South Africa and examine other coalition mine dog programs--Finland, Sweden, U.K., etc.)**



CG TRADOC Guidance

- DEC 01-



- **Establish booby trap and mine resource and training center**
 - **Fusion point for all countermine-related needs; Is future looking; Anticipates needs & integrates focused intelligence**
 - **Consolidates and maps known/suspected global mine hazards to support contingency and crisis planning**
 - **Conducts full spectrum threat analyses of mine & explosive device use in areas of interest**
 - **Conducts threat and operational analyses following mine incidents to identify immediate & long-term countermeasures; Incident analyses feed doctrinal and materiel countermeasure development**
 - **Develops TTPs & countermine materiel solutions for the combined arms force; Develops curriculum and training aids for CTCs & home station training**
- **Develop TTPs and training development packages**
- **Get mine detection dogs**



Recent CG TRADOC Guidance

APR 02

- **Get MDD now**
- **GET MRVs NOW; Figure out how to use them**
- **Acquire and experiment with promising cots countermine equipment**
 - **Develop TTPs**
 - **Prepare equipment for deployment w/without soldiers**
 - **Develop integration strategy with combined arms operations**
- **Develop STOs to support required detection requirements of the future force**
- **Countermining spiral development: spiral development of organization and materiel to yield integrated DTLOMS**
- **Solve operational and tactical dilemmas in the COE**

Essayons!



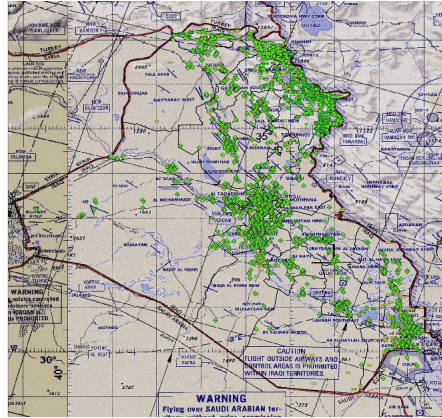
Counter Explosive Hazards Center (CEHC) Concept



Urgent Counter IED / Countermine requirements identified by
Maneuver Commander and G-3/J-3

Counter Explosive

Hazards Center



- Explosive Hazard Awareness Training (EHAT)
- Engineer Specific Countermine Training (ESCT)
- HSTAMIDS / AN/PSS-14 Certification
- F1A4 Minelab Certification
- Counter Booby Trap Familiarization (CBTF)

S&T: Sustained IED, CM R&D
In new technologies
PM: Rapid IED/CM Development

Intel: Develop IED, Mine Threat and
countermeasures, Track and analyze explosive hazards

Countermeasures: Develop IED/CM TTPs and training programs; Update doctrine

Rapid TTP development and equipment fielding

FIELD FEEDBACK



FIELD FEEDBACK

Essayons!



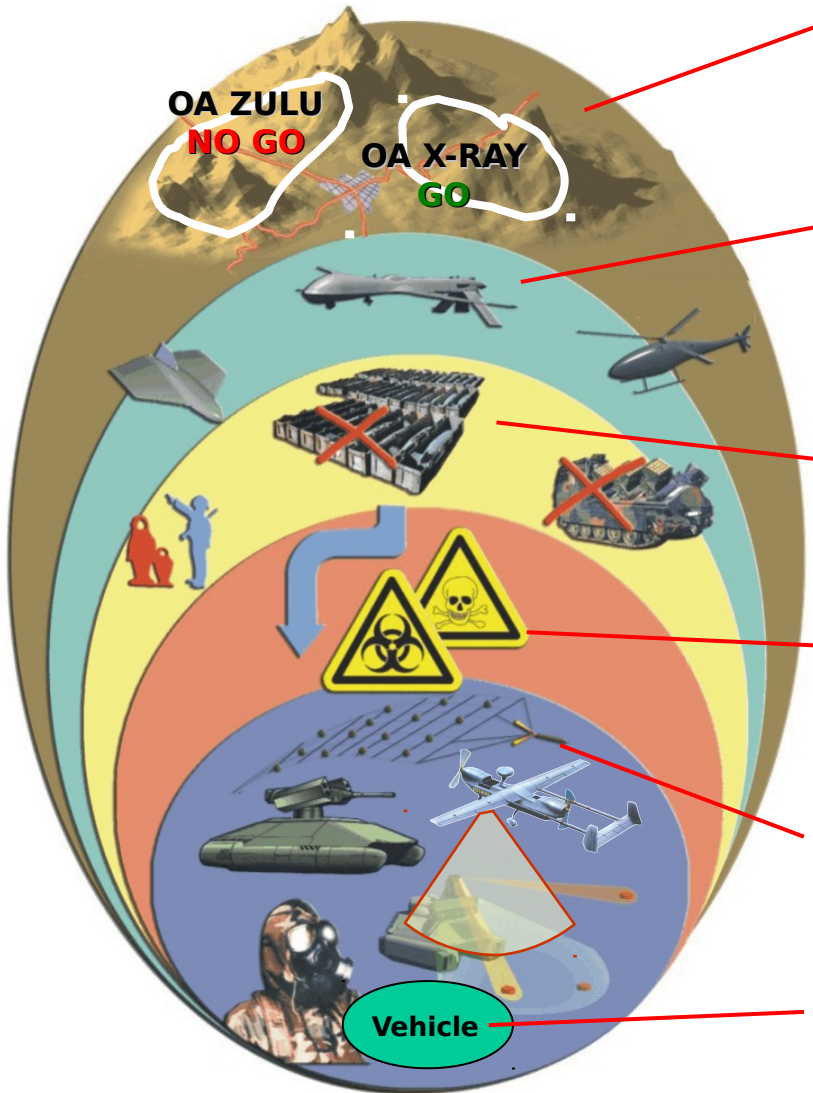
CEHC Mission



Synchronize and integrate counter explosive hazard (Mines, UXO, IEDs, Booby Traps) solutions, concepts, technology, and materiel across the DOTMLPF spectrum to support assured mobility; protect the force; defeat mine and explosive hazards in the contemporary operational environment; and ensure we maintain a superiority in all facets of counter explosive hazard warfare.



Tenets of Assured Mobility



- **PREDICT** actions and circumstances that could affect the ability of the force to maintain momentum
- Use ISR assets to **DETECT (Early)** indicators of impediments or lack of impediments to battlefield mobility early; identify alternatives and establish surveillance
- Act early to **PREVENT** potential impediments to maneuver from affecting battlefield mobility of the force
- If prevention fails, **Detect** impediments, identify alternatives and **AVOID** detected impediments to battlefield mobility of the force
- **NEUTRALIZE**, reduce, or overcome (breach) impediments to battlefield mobility that cannot be prevented or avoided
- **PROTECT** vehicles against effects

Essayons!



Intent



1. To provide the nation with a **single proponent** for countermine stewardship considerations. CEHC will develop **integrated** approaches to countermine DOTMLPF development in support of contingency and future force objectives.
2. To achieve unparalleled credibility as **the** countermine authority in all areas of doctrine, organization, training, materiel, leadership development, personnel and facilities for contingency and future operations.
3. Center will rapidly find, develop, test, train, field, and integrate countermine solutions across the DOTMLPF for contingency operations and identified critical capability shortfalls to support Training the Force and Taking Care of the Force.



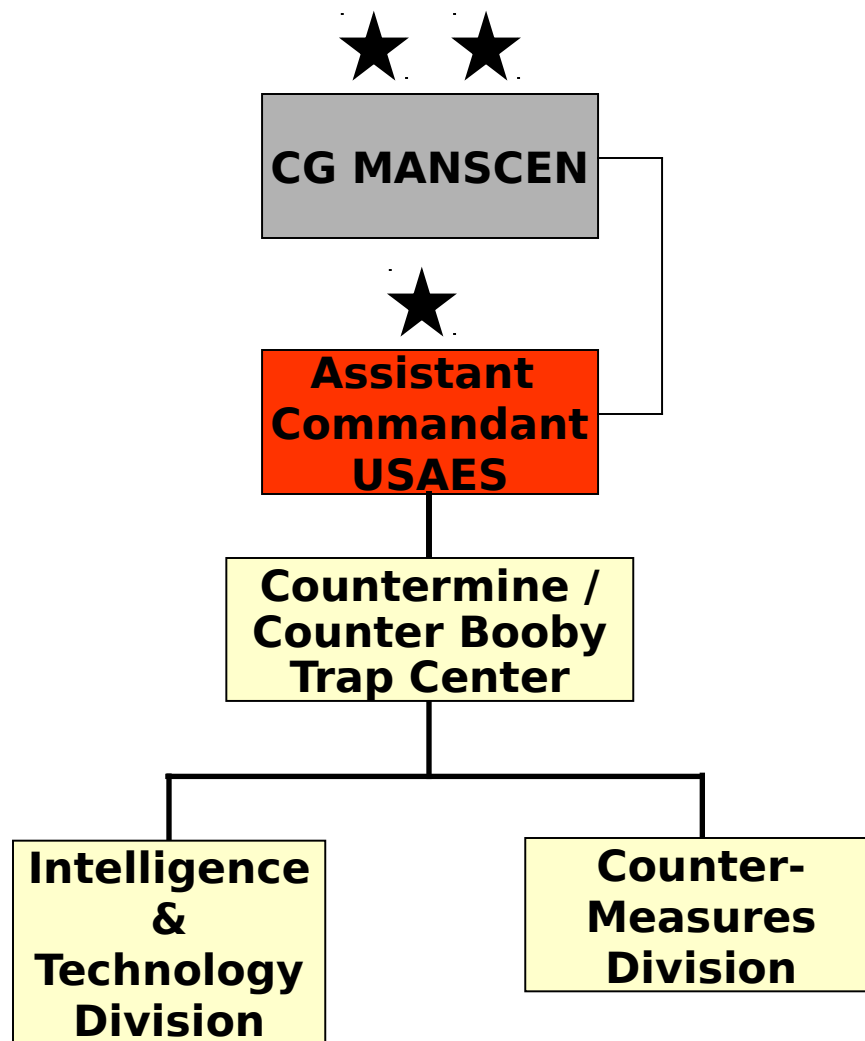
Vision



- World Class Center of Counter Explosive Hazards (Mines, UXO, IEDs, Booby Traps) Excellence and Integration
- Experts in All Facets of Counter Explosive Hazards (Mines, UXO, IEDs, Booby Traps)
- Professional and Responsive
- Futuristic



Command Structure





- Organization after TRADOC MRAD Study in Nov 03.
- Original Organization required 58 personnel.

Office of Director
Director, COL
Tech Director, GS-14
Operation OIC, LTC (AGR)
DOTMLPF Integrator, GS-12
Operations Tech, GS-09 (2)
Exec Asst, GS-06/7

Mine Detection and Specialized Engineer Search Dog Program

Intelligence & Technology Division
Chief, GS-13

Countermeasures Division
Chief, LTC (Not Auth)
Deputy, MAJ (UK)
Unit Spt NCOIC, E8 (Not Auth)

MDD Detachment
37 Personnel

Science & Technology Team
Materiel Integrator, GS-12 (2)
Integration Off, CPT (USMC)

Threat Team
Intelligence Officer, CPT (MI)
Intelligence Analyst, GS-11
Intell NCO, E6 (USMC)

Geospatial Team
Data Manager, GS-11
Terrain Analyst, GS-11
Terrain Officer, 1LT (USAF)
COMSEC Tech, GS-09
Terrain Tech, GS-09

<u>MIL</u>	<u>CIV/CME</u>	<u>Other MIL</u>
1 - O6	1 - GS14	1 - UK MAJ
0 - O5	1 - GS13	1 - CAN CPT
1 - O3	3 - GS12	1 - AUS SGM
0 - E8	7 - GS11	1 - LTC (AGR)
3 - E7	8 - GS09	3 - E6 (AGR)
3 - E6	1 - GS06	1 - USMC CPT
8	2 - GS05	2 - USMC E6
	2 - WG03	1 - USAF 1LT
	25	11
	Total: 44	

Mission Support Team
Training Tech, GS-11 (2)
Supply Tech, GS-05
General Maint, WG-03 (2)

Unit Support Team
Allied Off/NCO (2)
Unit Spt Chief, E7 (3)
Unit Spt Chief, GS-11
Unit Spt NCO, E6 (2)
Unit Spt NCO, E6 (AGR) (2)
Unit Spt NCO, E6 (USMC)
Unit Spt NCO, E6 (INF)
Unit Spt NCO, E6 (Chem AGR)
EOD Tech, GS-11
Unit Support Tech, GS-09 (4)



Overarching Functions



1. Intelligence & Technology Division -

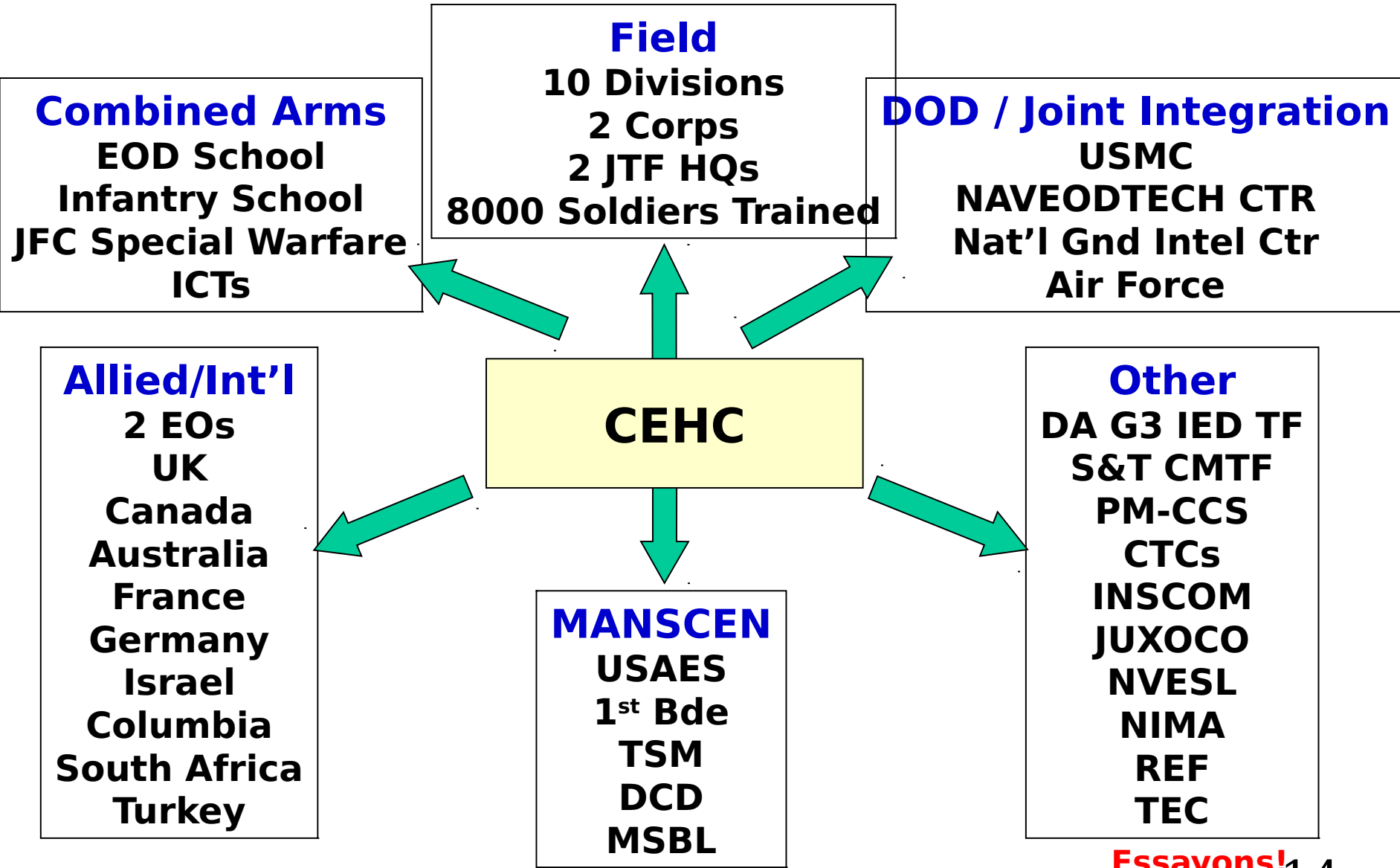
a. Intelligence. Analyze explosive hazard incidents world-wide; develop countermeasures; develop, maintain, and/or publish reports, lessons learned, or other documentation involving explosive hazards; coordinate with international intelligence community to include allied nations, other services, MACOMs, research and private organizations; track potential and existing world-wide explosive hazards and maintain a database; conduct explosive hazard database training; maintain secure and non-secure explosive hazards website; conduct terrain assessments and produce geospatial products.

b. Technology. Integrate non-US Army developed materiel solutions for explosive hazard countermeasures; accelerate integration of US Army materiel solutions for countermeasures to explosive hazards; find and rapidly develop and integrate Commercial Off The Shelf (COTS) countermeasure equipment; coordinate with international science and technology community to include allied nations, other services, MACOMs, research laboratories, universities, commercial manufactures, and intelligence organizations.

2. Countermeasures Division - Develop deliverables on explosive hazard countermeasures and new equipment training for COTS equipment to include training aids, programs of instruction, intelligence updates, handbooks, and TTPs; provide unit training support on COTS equipment, develop and train countermeasure TTPs to active and reserve component individuals and units, government civilians, contractors, other US services, and allied forces.



Operational Relationships





Intelligence Achievements



1. Coordinated the rapid development and fielding of the Theater Minefield Database (TMFDB) to track explosive hazards and conduct threat analysis to support operations in OEF / OIF.
2. Developed, resourced, and executed the training for two Mines and Explosive Ordnance Information Coordination Cells (MEOICC). The MEOICC provides the command and control for tracking and analyzing explosive hazards across the theater of operations. This organization coordinates and support respective Mine Action Authorities and Non-governmental Organizations supporting theater operations.
3. Developed a complete situational awareness of threat capabilities throughout the theaters of operation utilizing U.S. and Allied intelligence systems. Developed countermeasures against threat TTPs.
4. Maintains current database of explosive hazards for analysis and development of countermine solutions.
5. Developed and coordinated the publication of **four** **Essays!** **15** theater specific countermine handbooks to support



Science and Technology Achievements



1. Developed and implemented training programs for countermine systems fielded to OEF and OIF.
 - a. Berm Sifter → Used to clear antipersonnel mines in OEF
 - b. Matilda Robot → Used to remotely inspect caves, houses, and explosive hazards.
2. Working with multiple agencies to develop prediction, detection, prevention, neutralization, and protection capabilities to enable the commander to maneuver and protect Soldiers.
 - a. Conducted forward deployments to capture theater operating environment conditions to ensure developmental efforts are focused on the correct conditions
 - b. Maintained close contact with all involved agencies and provided guidance as to developmental directions and the current Threat TTPs and environment.
 - c. Supporting the development and testing of multiple detection and neutralization systems that utilize commercial off the shelf and future military technology.
3. Coordinated **TTP** development, training support, and logistical support for contingency fielding of countermining systems



Training Achievements



1. Developed and implemented critical mobile countermine awareness and tactical training for active and reserve units deploying into high threat theaters of operation.
2. Developed and trained the Handheld Standoff Mine Detection System (HSTAMIDS) as part of the rapid fielding to support OEF/OIF.
3. Conducted training for over 8000 military personnel and civilians to include all active divisions from Jan 03 to Jan 04.
4. Reviewed and updated doctrinal manuals to reflect best practices conducting route and area explosive hazards clearance operations.
5. Forward deployed into OEF/OIF to train military personnel and develop TTPs in conjunction with forces in Theater.
 - a. **Route Clearance** → Developed in conjunction with CJTF 7 forces.
 - b. **Area Clearance** → Developed TTPs in conjunction with CJTF 17

Essayons!



Current Actions

- Staffing CEHC Concept plan for DA G3 approval
 - TRADOC Manpower Survey validated 46 personnel; consists of joint and multinational positions
 - CEHC Facility approved for FY 07 construction; Senator Kit Bond currently working congressional add to begin construction in FY 05
 - Validated resource requirements through FY 11 POM
- Establishing a consolidated countermine materiel coordination site to share developmental actions, reduce redundant efforts, and provide maneuver commanders with a single proponent for countermine materiel requirements
- Developing three mobile training teams capable of deploying to any location and providing critical countermine awareness, TTP, and equipment training
- Coordinating the establishment of countermine equipment training site at Fort Leonard Wood to prepare operators, trainers, and leaders for deployment; will reduce the in-theater train-up and provide maneuver commanders with Forces ready to conduct countermine operations



Current Training



- Explosive Hazard Awareness Training (EHAT)
- Explosive Hazard Awareness Train the Trainer (EHAT-T)
- Engineer Specific Countermine Training (ESCT)
- Engineer Specific Countermine Train the Trainer (ESCT-T)
- HSTAMIDS / AN/PSS-14 Operator Certification
- HSTAMIDS / AN/PSS-14 Trainer Certification
- F1A4 Minelab Operator Certification
- F1A4 Minelab Trainer Certification
- Counter Booby Trap Familiarization (CBTF)
- Tactical Minefield Database (TMFDB) Operator Course
- Mine and Explosive Ordnance Information Coordination Cell (MEOICC) Course
- MATILDA robot training
- Berm Sifter training



Upcoming Actions

1 of 2



- Intelligence
 - Country Specific Explosive Hazard Studies CD → Current and Future
 - Update Country Specific Country Handbooks
 - Complete development of TMFDB POI
 - Complete development of MEOICC POI
 - Provide analysis and automation support to TEDAC
 - Expand intelligence links to include Allied nations
- S&T
 - Evaluate and develop operator training, TTPs, logistical support, and fielding plan for MV4 flail
 - Develop CM equipment operator training plans for CM equipment training set
 - Establish feedback and evaluation system for fielded equipment
 - Develop contingency Concept of Operations (CONOPS) plans for possible explosive hazard solutions
 - Develop and train CM equipment TTPs



Upcoming Actions

2 of 2



- Countermeasures
 - Support the development of functional courses
 - Master Countermine Course
 - Countermine Course
 - Counter Booby Trap Course
 - Conduct quarterly deployments to theaters of operation
 - Update EHAT and ESCT training
 - Develop Explosive Ordnance Reconnaissance (EOR) developmental system
 - Develop Battlefield Munitions Disposal (BMD) developmental system
 - Provide Updated Area / Route Clearance TTPs and Doctrine
 - Develop CM Equipment Training Plans
 - Develop Explosive Hazard Training Aids and Kits
 - Develop and Publish Explosive Hazard GTAs



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